

I. AMENDMENTS

Amendments to the Claims:

This listing of all pending claims (including withdrawn claims) will replace all prior versions, and listings, of claims in the application. Cancelled and not entered claims are indicated with claim number and status only. The claims show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Listing of Claims:

1. (Previously Presented) An information providing system comprising:

a plurality of information sources each having both an information providing function of providing an information item upon receipt of a request from a user's client for the same, and each having an index output function of outputting an individual index indexing information items that it is capable of providing from its information providing function, where the index output function and the information providing function are separate functions;

retrieval engines each having an index construction function of receiving at least one individual index outputted by the index output function of at least one information source and constructing a general index indexing information items capable of being provided by the least one information source, and having an information retrieval function of retrieving information for a user upon receipt of a user request to retrieve information by referring to the general index constructed by the index construction function; and

a mediating apparatus intervening between said information sources and said retrieval engines and adapted to receive a plurality of individual indexes outputted from said plurality of information sources, the mediating apparatus deciding which received individual indexes to send to which retrieval engines based on comparing the received individual indexes with a predetermined index selection condition, and sending the selected individual indexes to corresponding decided retrieval engines for use in the index construction functions of said retrieval engines.

2. (Previously Presented) A mediating apparatus comprising:

an index receiving section adapted to receive a plurality of individual indexes outputted

by a plurality of information sources, each information source having both an information providing function of providing an information item to a user's client upon receipt of a user request for the same, and each information source having an index output function of outputting an individual index indexing information items that it is capable of providing from its information providing function;

an index selection section adapted to decide which one of plural retrieval engines is to receive an individual index by determining whether the outputted and received individual index satisfies a predetermined index selection condition; and

an index sending section adapted to send the individual index to the decided retrieval engine for use in an index construction function, said index construction function receiving at least one individual index outputted by the index output function of at least one information source to construct a general index representative of information group capable of being provided by at least one information source, and an information retrieval function of retrieving information upon receipt of a request for retrieving information using the general index constructed by the index construction function.

3. (Previously Presented) A mediating apparatus according to claim 2, wherein, said mediating apparatus further comprises an index selection condition storage section for storing the index selection condition in association with said decided retrieval engine upon receipt of a request for registration of the index selection condition by said retrieval engine, said index selection section selects an individual index satisfying an index selection condition stored in said index selection condition storage section, and

said index sending section sends the individual index selected by said index selection section to a retrieval engine associated with the index selection condition used in selection of the individual index, of the plurality of retrieval engines.

4. (Original) A mediating apparatus according to claim 2, wherein said information sources each has, as the index output function, a function of receiving a push program defining a method of producing and outputting the individual index to produce and output the individual index in accordance with the method defined by the push program, and

said mediating apparatus further comprises a program receiving section for receiving the push program,

a program selection section for selecting a push program satisfying a predetermined program selection condition from among the push programs received by said program receiving section, and

a program sending section for sending the push program selected by said program selection section to said information source for use in the index output function.

5. (Original) A mediating apparatus according to claim 4, wherein said mediating apparatus further comprises a program selection condition storage section for storing the program selection condition in association with said information source upon receipt of a request for registration of the program selection condition by said information source,

said program selection section selects a push program satisfying a program selection condition stored in said program selection condition storage section, and

said program sending section sends the push program selected by said program selection section to an information source associated with the program selection condition used in selection of the push program.

6. (Previously Presented) A method of mediating index information exchanged between information source servers and retrieval engines that index the information source servers, the method comprising:

maintaining, at a mediator separate from and between the information source servers and the retrieval engines, information categories of the information source servers and of the retrieval engines; and

based on the information categories, deciding which index information to distribute to which retrieval engines, where the indexing information is pushed to the mediator from the information source servers, and where the pushed indexing information indexes information providable by the information source servers to users upon request of clients of the users.

7. (Previously Presented) A method according to claim 6, further comprising:

based on the indicia, distributing from the mediator to the information source servers index-pushing information used by the information source servers to push the indexing information.

8. (Previously Presented) A system for mediating information source servers and retrieval engines for retrieving information from the information source servers, where the information source servers serve information to user clients over a network responsive to requests of the users, where the retrieval engines store index information indexing the information served by the information source servers, and where the retrieval engines use the index information to search the information responsive to user requests, the system comprising:

a mediator, separate from the information source servers and retrieval engines, the mediator being capable of mediating distribution of a push-program and mediating distribution of index information pushed from the push-program after the push-program has been distributed by the mediator;

the mediating distribution of a push-program comprising:

receiving a push-program capable of pushing from an information server index information of that server,

deciding which of the information source servers are suitable to the push-program, and

pushing the push-program to the suitable information source servers; and

the mediating distribution of pushed index information pushed by the push-program comprising:

receiving index information of an information source server pushed by a push-program of the information source server,

deciding one or more of the retrieval engines that are suitable to receive the pushed index information, and

sending the pushed index information to the one or more suitable retrieval engines.

9. (Currently Amended) A method, comprising:

using a mediator program to push different push-programs to different types of information source servers;

executing the different push-programs on the different types of information source servers, where each push-program received by an information source server executes and detects changes in information provided to user clients by its respective information source server by comparing current information available from the respective information source server with previous information available from the respective information source server, and where

each push-program responds to detected changes by pushing to the mediator program indicia of the differences; and

sending the indicia of the differences from the mediator program to s-retrieval engines, where the retrieval engines provide retrieval information to user clients where it is to be displayed and used by the users for retrieving information at the information source servers based on the indicia received from the mediator program.

10. (Previously Presented) A method according to claim 9, wherein the indicia are directed, by the mediator program, to particular retrieval engines according to content of the indicia.

11. (Previously Presented) A method according to claim 9, wherein the indicia comprise index information that indicates locations of information items provided by the information source servers and referred to in the retrieval information for retrieving the same.

12. (Previously Presented) A method for use in a system comprising internet search engines and web servers, where the web servers serve content via web pages sent to web clients, where the search engines have search indexes that index the content of the web servers, where the web clients submit search requests to the search engines, where a search engine responds to a web client's search request by searching its search index and returning to the requesting web client links to web server content found by the index search, where the search indexes of the respective search engines are based on web server content indexes of the content of respective individual web servers received by the search engines, the method comprising:

at a mediator between the search engines and the web servers: receiving over a network the content indexes of the respective web servers, making decisions at the mediator to determine which content indexes should be routed to which search engines, and routing the content indexes to the search engines in accordance with the decisions, where the decisions are based on the content indexes or information received in association therewith.

13. (Previously Presented) A method according to claim 9, wherein user clients comprise document or web browsers, wherein the retrieval information comprises a web page, and wherein the information source servers comprise web servers, an.

14. (Previously Presented) A method according to claim 10, wherein user clients comprise document or web browsers, wherein the retrieval information comprises a web page, and wherein the information source servers comprise web servers.

15. (Previously Presented) A method according to claim 11, wherein user clients comprise document or web browsers, wherein the retrieval information comprises a web page, and wherein the information source servers comprise web servers.